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Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

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Job No.: CTCE/BBMP/W.No.07/KRIDL/CEMENT/2014-15

Date: 24.05.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
AGENCY	:	**Technical Manager,** KRIDL, Bangalore.
NAME OF THE WORK	:	Improvements to size stone masonry (SSM) drains from amruthahalli govt.school to eshwara temple, Amruthahalli in Ward No.07 BBMP, Bangalore.
REFERENCE	:	EE/BTP/KRIDL/W.O/05/2014-15 Dated: 22.05.2014
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	155 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	490 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	27.00 %	-

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Job No.: CTCE/BBMP/W.No.07/KRIDL/SAND/2014-15 : 24.05.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to size stone masonry (SSM) drains from amruthahalli govt.school to eshwara temple, Amruthahalli in Ward No.07 BBMP, Bangalore.

Reference : EE/BTP/KRIDL/W.O/05/2014-15 Dated: 22.05.2014

Date of Testing : 24.05.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	87	4.35	4.35	95.7	90-100
2.36	222	11.10	15.45	84.6	75-100
1.18	485	24.25	39.70	60.3	55-90
600 Micron	427	21.35	61.05	39.0	35-59
300 Micron	498	24.90	85.95	14.1	8-30
150 Micron	215	10.75	96.70	3.3	0-10

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Job No.: CTCE/BBMP/W.No.07/KRIDL/AGG/2014-15 : 24.05.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of Work : Improvements to size stone masonry (SSM) drains from amruthahalli govt.school to eshwara temple, Amruthahalli in Ward No.07 BBMP, Bangalore.

Reference : EE/BTP/KRIDL/W.O/05/2014-15 Dated: 22.05.2014

Date of Testing : 24.05.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25500**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	1015	3.98	3.98	96.02	95-100
20	16504	64.72	68.70	31.30	30-70
10	5123	20.09	88.79	11.21	10-35
4.75	2450	9.61	98.40	1.60	0-5

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Job No.: CTCE/BBMP/W.No.07/KRIDL/STEEL/2014-15 24.05.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager,** KRIDL, Bangalore.
Name of the work	:	Improvements to size stone masonry (SSM) drains from amruthahalli govt.school to eshwara temple, Amruthahalli in Ward No.07 BBMP, Bangalore.
Reference	:	EE/BTP/KRIDL/W.O/05/2014-15 Dated: 22.05.2014
Date of Test	:	24.05.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	10	0.62	513	547	13.10	O.K	O.K

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Job No.: CTCE/BBMP/W.No.07/KRIDL/STEEL/2014-15 24.05.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager,** KRIDL, Bangalore.
Name of the work	:	Improvements to size stone masonry (SSM) drains from amruthahalli govt.school to eshwara temple, Amruthahalli in Ward No.07 BBMP, Bangalore.
Reference	:	EE/BTP/KRIDL/W.O/05/2014-15 Dated: 22.05.2014
Date of Test	:	24.05.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	12	0.89	515	551	13.35	O.K	O.K

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JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.07/KRIDL/CUBE/2014-15 23.06.2015

TEST REPORT ON CONCRETE CUBES

Client : **Asst. Executive Engineer,** Kodigehalli Sub Division, BBMP, Bangalore.

Agency : **Technical Manager,** KRIDL, Bangalore.

Name of the work : Improvements to size stone masonry (SSM) drains from Amruthahalli Govt. School to Eshwara Temple, Amruthahalli in Ward No. 07, BBMP, Bangalore.

Reference : EE/BTP/KRISL/WO/05/2014-15 Dated: 22.05.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	26.05.2015	23.06.2015	8.147	470.5	20.91
2	26.05.2015	23.06.2015	8.196	498.6	22.16
3	26.05.2015	23.06.2015	8.231	482.3	21.44

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Reference : EE/BTP/KRISL/WO/05/2014-15 Dated: 22.05.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	27.05.2015	24.06.2015	8.164	475.8	21.15
2	27.05.2015	24.06.2015	8.328	502.4	22.33
3	27.05.2015	24.06.2015	8.259	489.7	21.76

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Reference : EE/BTP/KRISL/WO/05/2014-15 Dated: 22.05.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.05.2015	25.06.2015	8.278	487.9	21.68
2	28.05.2015	25.06.2015	8.163	473.5	21.04
3	28.05.2015	25.06.2015	8.392	503.6	22.38

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Reference : EE/BTP/KRISL/WO/05/2014-15 Dated: 22.05.2014

Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

Grade of Concrete : M_{20}

Compressive Strength as on : 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	29.05.2016	26.06.2015	8.425	515.6	22.92
2	29.05.2016	26.06.2015	8.362	502.7	22.34
3	29.05.2016	26.06.2015	8.279	483.5	21.49

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